

MACROMERIA ALBA (BORAGINACEAE), A NEW SPECIES
FROM TAMAULIPAS, MEXICO

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ABSTRACT

Macromeria alba is described from Gomez Farías area in the Sierra Guatemala of west-central Tamaulipas. It is most closely related to *M. notata* from the high mountains of Coahuila and Nuevo León to the north.

RESUMEN

Se describe *Macromeria alba* de la región de Gomez Farías en la Sierra Guatemala en la oeste-central de Tamaulipas. La especie nueva parece tener afinidades estrechas con *M. notata*, la cual se encuentra en las montañas altas del norte de Coahuila y Nuevo León.

Continued curation of the Boraginaceae at TEX-LL has brought to light an undescribed species of *Macromeria*. It is the second new borage from the Sierra Guatemala of west-central Tamaulipas (see Nesom 1988)—both made by Dr. Alfred T. Richardson, presently at Texas Southmost College in Brownsville. This species is the first addition to the genus since Johnston's revision (1954), making a total of nine currently recognized species. The genus ranges from the southwestern United States to Guatemala with two species-rich areas, one in northeastern Mexico and the other in southwestern Mexico.

Macromeria alba Nesom, sp. nov. (Fig. 1)—TYPE: MÉXICO, Tamaulipas, Mpio. Gomez Farías, area W of Rancho del Cielo in the sierra, ca. 5–7 km NW of Gomez Farías, between San Jose and La Perra [just S of Agua del Indio, area of pine-oak], 30 May 1969, *A. Richardson 1263* (holotype, TEX).

M. notatae simile sed foliis brevipetiolatis, lobis calycis brevioribus, et corollis albis lobis multo longioribus differt.

Perennials to 2 m tall. Stems with ascending-appressed hairs 0.3–1.5 mm long. Leaf blades lanceolate-elliptic to ovate-lanceolate, 2.5–10 cm long, 8–30 mm wide, with primary veins slightly impressed above, raised beneath, lighter-colored beneath; apices acute to acuminate, bases obtuse to rounded and abruptly forming a stipe-like petiolar base 1–2 mm long, margins entire, usually narrowly revolute, appressed-ciliate; the lower surfaces evenly strigose with closely



FIG. 1. Habit of *Macromeria alba* (from Richardson 366).

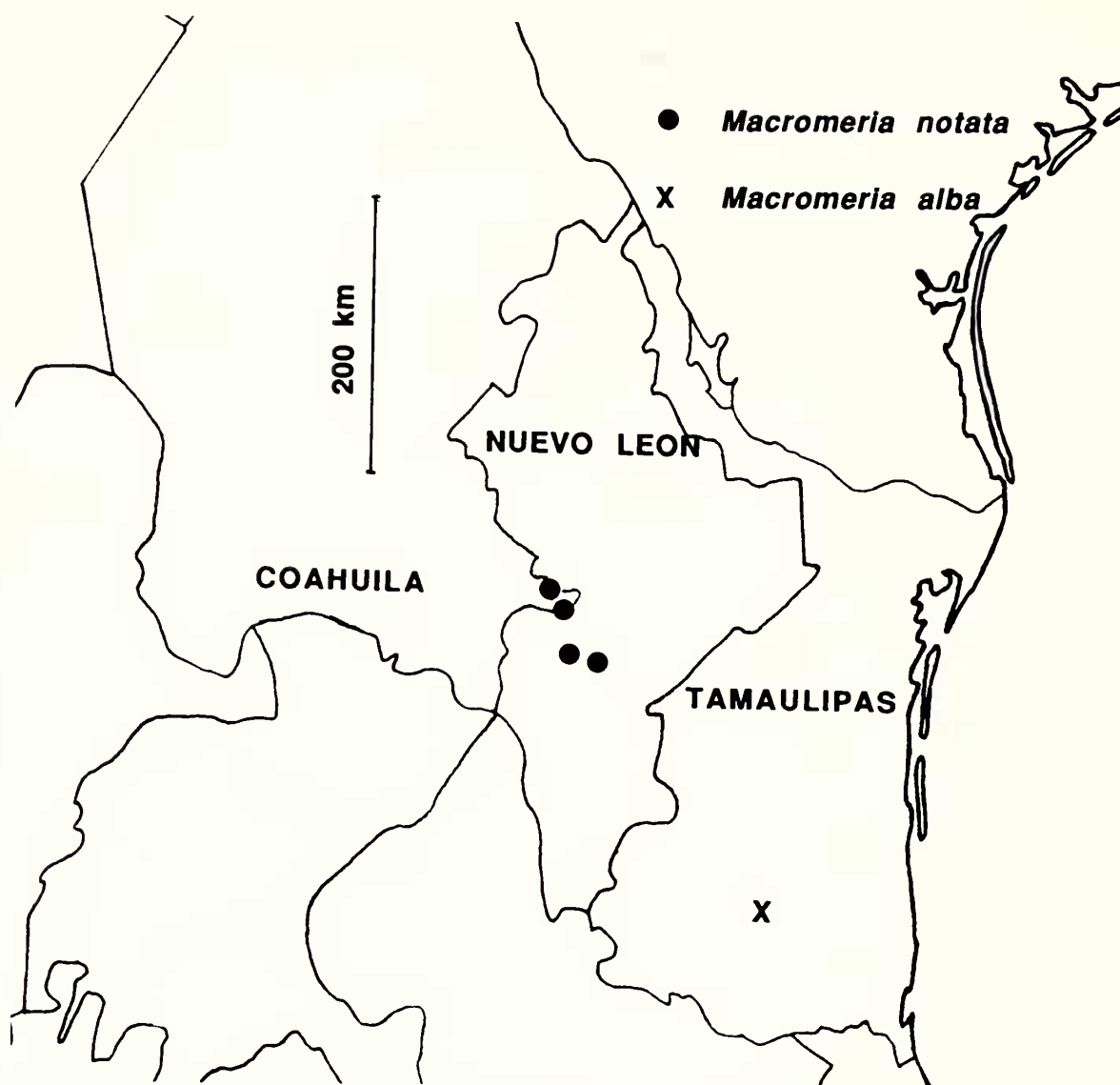


FIG. 2. Distribution of *Macromeria alba* and *M. notata*.

appressed hairs mostly 0.5–0.9 mm long, upper surfaces usually with minute, pustulate trichome bases without emergent trichomes, or trichomes, when present, never more than 0.2 mm long. Flowers in axils of well-developed leaves on internodes 5–10 mm long, mature fruits separated on internodes up to 40 mm long; pedicels 5–8 mm long in flower, to 13 mm long in fruit; calyx lobes linear-triangular, 0.5–1 mm wide, 6–8 mm long in flower, to 11 mm long in fruit; corollas white, prominently spreading-hairy on the outside, 42–47 mm long, gradually ampliate from near the base, regular, 4–6 mm wide (pressed) at the throat, lobes erect or ascending, lanceolate to ovate-lanceolate or triangular, 6–9 mm long, inner surface of each with a band of stipitate-glandular hairs beginning in the throat and extending halfway to the apex, corollas otherwise glabrous inside; style persistent, as long as or slightly longer than the filaments, barely exerted, stigma subterminal, separated by sterile tip of the style; anthers glabrous, 2 mm long, medio-fixed, filaments as long as the

corolla. Nutlets ovoid, smooth and shiny, white or brownish, 2 mm wide, 2.5–3 mm long.

Known only from the region of Rancho del Cielo near Gomez Farías, Sierra de Guatemala, Tamaulipas, at ca. 4800–6300 ft in elevation (Fig. 2).

PARATYPES: MEXICO, Tamaulipas, Mpio. Gomez Farías, area of Rancho de Cielo, ca. 5–7 km NW of Gomez Farías: Agua Linda trail, 5 Jun 1969, *Richardson 1367* (TEX); between Indian Springs and Agua Linda turnoff, 26 Jun 1968, *Richardson 366* (TEX).

Macromeria alba is clearly most similar to *M. notata* I. M. Johnston and keys to that species in Johnston's study (1954) of the genus. Both species have corollas with erect or ascending lobes and with prominent lines of stipitate glands (described in *M. notata* as "weakly invaginate elongate densely glanduliferous plaits") on each lobe extending from inside the throat below each lobe to beyond the middle of it. As noted by Johnston, *M. longiflora* D. Don and *M. pringlei* Greenman also have glandular corollas with erect lobes, although the glands are not positioned similar to those of *M. alba* and *M. notata*. The epithet "alba" refers to the corolla color (as noted by the collector); in the other species of *Macromeria*, corollas usually range from yellow to light yellow or yellow-green. Differences between the new species and its closest relative are presented in the following couplet.

- A. Stem pubescence of hairs variable in length, all ascending-appressed; leaves usually abruptly narrowed at the very base to a stipe-like petiole 1–2 mm long; pedicels 5–8 mm long in flower; calyx lobes 7–8 mm long in flower; corollas white, funnelform, gradually opened to the throat, the lobes 6–9 mm long, lanceolate to ovate-lanceolate. *M. alba*
- A. Stem pubescence a mixture of short, arching-appressed hairs and longer, straight, spreading ones; leaves basally attenuate and sessile, not at all petiolate; pedicels 2–4 mm long in flower; calyx lobes 10–15 mm long in flower; corollas yellow with greenish lobes, slightly funnelform, abruptly flaring at the throat, the lobes 3–5 mm long, widely to very widely ovate. *M. notata*

The pubescence of the upper leaf surface in *Macromeria alba* mostly consists of minute, pustulate bases without emergent trichomes, or when trichomes are present they are never more than 0.2 mm long. In *M. notata* the trichomes are 0.5–0.1 mm long. In *M. notata*, the flowers are tightly clustered at the branch tips, compared to the more distantly separated flowers and fruits of *M. alba*. In addition, label data indicate that plants of *M. alba* grow to a height of about 2 m, whereas the collections of *M. notata* are all of plants 0.2–0.5 m tall.

Macromeria alba apparently is endemic to the area just west of Gomez Farías in the Sierra Guatemala of west-central Tamaulipas. All collections were made in an area of pine-oak woodland (Al Richardson pers. comm.). *Macromeria notata* is a species apparently restricted to high mountains of Coahuila (Sierra de Viga) and Nuevo

León (Sierra Infernillo—the type, Sierra de la Marta, and Cerro Potosí). The closest known localities of the two species are about 200 kilometers apart.

ACKNOWLEDGMENTS

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LITERATURE CITED

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NOTEWORTHY COLLECTION

CALIFORNIA

PRUNUS FASCICULATA (Torrey) A. Gray var. *FASCICULATA* (ROSACEAE).—San Luis Obispo Co., E foothills of La Panza Mts. on hill above Dominez Rd between Del Rosa and Doris Trail in California Valley tract area, unit 32, T30S R19E, NW¼ of sect. 31, 645 m, ca. 80 individuals among rocks, assoc. with *Ericameria linearifolia* and grasses, 30 Mar 1988, *Douglas Chadwick s.n.* (OBI).

Previous knowledge. The desert almond is widespread in transmontane deserts of SE CA, and ranges E to NV, UT, and AZ. In CA it is occasional to locally abundant in desert portions of Transverse and Peninsular ranges, desert-facing slopes of the southern Sierra Nevada, and various of the transmontane desert ranges.

Significance. First record for S Coast Ranges of cismontane CA; disjunct by ca. 165 km from nearest population (in S Sierra Nevada near Onyx, Kern Co.; Twisselmann, Fl. Kern Co., Calif., 1967). *Prunus fasciculata* is represented in coastal areas of San Luis Obispo and Santa Barbara cos. by var. *punctata* Jepson, the sand almond, a taxon restricted to coastal dune formations (Hoover, Vasc. Pl. San Luis Obispo Co., Calif., 1970; Smith, Fl. Santa Barbara Region, Calif., 1976). The population of *P. fasciculata* var. *fasciculata* is separated from the nearest San Luis Obispo Co. populations of var. *punctata* by ca. 78 km and by the principal ridges of the La Panza and Santa Lucia Mts. In its hot, dry climate the California Valley and adjacent regions of the Carizzo Plain resemble the Mojave Desert much more than they do the coastal dune areas.—ANN CHADWICK and DAVID J. KEIL, Biological Sciences Department, California Polytechnic State University, San Luis Obispo, CA 93407.